REMARKS

This Amendment After Final Rejection is submitted in response to the outstanding final Office Action, dated September 25, 2006. Claims 11-13 were cancelled in the Amendment and Response to Office Action dated July 14, 2006. Claims 1-10 and 14-21 are presently pending in the above-identified patent application. Claims 4 and 17 are proposed to be amended herein.

This amendment is submitted pursuant to 37 CFR §1.116 and should be entered. The Amendment places all of the pending claims, i.e., claims 1-10 and 14-21, in a form that is believed allowable, and, in any event, in a better form for appeal. It is believed that examination of the pending claims as amended, which are consistent with the previous record herein, will not place any substantial burden on the Examiner. In any case, a Request for Continueed Examination is being submitted herewith.

In the Office Action, the Examiner rejected claims 1, 2, 5, 6, 10, and 14-20 under 35 U.S.C. §103(a) as being unpatentable over Metze (United States Patent No. 5,754,948). In addition, the Examiner rejected claims 3 and 21 under 35 U.S.C. §103(a) as being unpatentable over Metze in view of Cheung et al. (United States Patent No. 6,577,157). Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Metze in view of Nozawa et al. (United States Patent No. 6,942,157). Claims 7-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Metze in view of Ghaem (United States Patent No. 5,335,361).

Dependent Claim 4

Dependent claim 4 has been amended to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Support for this amendment can be found on page 4, lines 9-10, of the originally filed specification.

Independent Claims 1, 14 and 17

Independent claims 1, 14 and 17 were rejected under 35 U.S.C. §103(a) as being unpatentable over Metze. The Examiner asserts that Metze teaches a method for wireless communication among first and second integrated circuit devices 16 within an enclosure 12, said

method comprising the steps of: transmitting a signal using a first antenna associated with said first integrated circuit device (citing antenna in FIG. 2); and receiving said signal using a second antenna associated with said second integrated circuit device within said enclosure 12. In the Response to Arguments section of the final Office Action, the Examiner asserts that the suggestion of the http://en.wikipedia.org/wiki/Ultra_wideband teaching is neither in the claims, nor in the specification. The Examiner also asserts that Metze suggests the well known use of high bandwidth in col. 3, lines 59-65, and col. 5, lines 24-32 and 42-45. In response to applicant's argument that, if using multiple frequency bands, the transmitted information is effectively spread across a wide range of frequencies, the Examiner asserts that, if the prior art structure is capable of performing the intended use, then it meets the claim.

Each of the independent claims 1, 14 and 17 have been amended to emphasize that the signal is transmitted using the first antenna *in accordance with an ultra wide band wireless standard*. The Examiner previously considered this limitation with regard to original claim 12. With regard to claim 12, the Examiner acknowledged that Metze failed to teach that the signal is transmitted in accordance with an ultra wide band standard. The Examiner asserts, however, that it would be obvious to include different short-range standards into the system of Metze.

Metze is clearly limited to transmission and reception over *discrete* carrier frequencies. See, for example, the discussion at col. 4, lines 48-53, where it is noted that if the MIMIC 16 labeled T1/R1 (in FIG. 1) transmits at (discrete) frequency f2 and receives at (discrete) frequency f1 and the MIMIC 16 labeled T2/R2 transmits at (discrete) frequency f1 and receives at (discrete) frequency f2, data can be readily transmitted between the CPUs 14 labeled A1 and A2.

Ultra wide band communications, on the other hand, is a *wideband* wireless technology, rather than a *narrowband* technology, that depends on encoding the information on a number of narrow carrier frequencies. Using multiple frequency bands, the transmitted information is effectively spread across a wide range of frequencies. See, e.g.,

http://en wikipedia org/wiki/Ultra_wideband

Regarding the Examiner's assertion that the suggestion of the http://en.wikipedia.org/wiki/Ultra_wideband teaching is neither in the claims, nor in the specification, Applicant notes that the present disclosure teaches that ultra high bandwidths can now be exploited for inter-device connections. (See, page 3, line 29, to page 4, line 5.) The present disclosure also teaches that "a variety of protocols and technologies can be utilized for the wireless interconnection links, *such as IEEE 802.11a, **UWB**, or Bluetooth*." (Page 4, lines 18-19; emphasis added.) Regarding UWB, the http://en.wikipedia.org/wiki/Ultra_wideband disclosure teaches that "a significant difference between traditional radio transmissions and UWB radio transmissions is that traditional transmissions transmit information by varying the power/frequency/and or phase in distinct and controlled frequencies while *UWB transmissions transmit information by generating radio energy at specific times with a broad frequency range*" (Emphasis added.) Thus, by definition, UWB transmissions *generate radio energy at specific times with a broad frequency range, i.e., the transmitted information is effectively spread across a wide range of frequencies*.

Regarding the Examiner's assertion that Metze suggests the well known use of high bandwidth in col. 3, lines 59-65, and col. 5, lines 24-32 and 42-45, Applicants note that *high bandwidth* and *ultra wide bandwidth are **not** technically equivalent*, as would be well understood by a person of ordinary skill in the art. In addition, in the text cited by the Examiner, Metze teaches that

> the use of a the millimeter-wave data communication link provides additional advantages including higher modulation bandwidth as compared with hardwired links, and lower costs as compared with optical links. Wide bandwidth MIMICs operating at well above 100 GHz are now commercially available. Thus, transferring data at rates well above a few GBits/sec can be achieved.
> (Col. 3, lines 59-65.)

Metze also teaches that,

> the transmit/receive circuit 18 preferably operates at frequency ranges above 35 GHz, and most preferably at frequencies between 60 GHz and 94 GHz, as MIMICs operating in this frequency range are readily available and

> provides sufficient bandwidth and channel capability. It will be understood, however, that other frequencies may be utilized and still fall within the standard I E E.E. definition of "millimeter-wave" for purposes of this invention.
>
> Data is supplied from the CPUs 14 to the MIMICs 16 in either serial or parallel form, depending upon speed/data processing requirements, for either serial or parallel transmission. If data is supplied in parallel to the MIMICs 16, it may be desirable to incorporate a plurality of transmit/receive circuits 18 within each MIMIC 14 to handle individual data bits of a data word. For example, in a system employing an eight bit data word (DO-D7) illustrated in FIG. 3, a MIMIC 20 coupled to a corresponding CPU 22 includes eight transmit/receive circuits 18, each transmit/receive circuit 18 corresponding to a received data bit and programmed to operate at a different frequency (60 GHz-67 GHz) Another MIMIC 24, also including a corresponding number of transmit/receive circuits 18, is programmed to receive at the transmission frequencies of the first MIMIC 20 so that data word received from the CPU 22 by the MIMIC 20 is transmitted in parallel to the MIMIC 24 and subsequently transferred to a second CPU 26
> (Col. 5, lines 24-49)

Metze, however, does ***not*** disclose or suggest *ultra wide bandwidth*, as defined in the art.

Regarding the Examiner's assertion that, if the prior art structure is capable of performing the intended use, then it meets the claim, Applicants note that independent claim 17 has been amended to require at least one circuit *for transmitting a signal in accordance with an ultra wide band wireless standard*. Metze does ***not***, however, disclose or suggest at least one circuit *for transmitting a signal in accordance with an ultra wide band wireless standard*.

Finally, Metze's teaching of the use of *discrete* carrier frequencies, such as f1 and f2, for transmission and reception between two integrated circuits actually ***teaches away*** from the present invention

Thus, Metze does not disclose or suggest transmitting a signal using a first antenna associated with said first integrated circuit device in accordance with an ultra wide band wireless standard, as required by independent claim 1, does not disclose or suggest transmitting a signal using an antenna associated with said integrated circuit device in accordance with an ultra wide band wireless standard to a second integrated circuit device within said enclosure, as required by independent claim 14, and does not disclose or suggest at least one circuit for

transmitting a signal in accordance with an ultra wide band wireless standard, as required by independent claim 17, as amended.

Applicant respectfully requests the withdrawal of the rejection of independent claims 1, 14 and 17.

Dependent Claims

Claims 2-10, 15-16, and 18-21 are dependent on independent claims 1, 14 and 17, respectively, and are therefore patentably distinguished over Metze, Cheung et al., Nozawa et al. and Ghaem, alone or in any combination, because of their dependency from independent claims 1, 14 and 17 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

All of the pending claims, i.e., claims 1-10 and 14-21, are in condition for allowance and such favorable action is earnestly solicited.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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Kevin M. Mason
Attorney for Applicants
Reg. No. 36,597
Ryan, Mason & Lewis, LLP
1300 Post Road, Suite 205
Fairfield, CT 06824
(203) 255-6560